

ABSTRACT

In a method for predicting bending life spans of wires, the wires, temperatures, pre-vibration shapes, and constraint conditions are set, and finite element models of the electric wires are formed using a finite element method. Natural frequencies for the pre-vibration shapes are calculated, and stresses in individual finite elements of the finite element models which correspond to the natural frequencies are calculated, and a maximum stress is retrieved. Predicting functions corresponding to the plural electric wires and the atmosphere temperatures, which are set, are read out. A bending life span corresponding to the maximum stress of each electric wire, is acquired while referring to the predicting functions read out, and a shortest bending life span is obtained from the bending life spans, and output.